Amendments To The Claims:

Please amend the claims as shown.

1 – 15 (canceled)

16. (new) A cooling air cooling system in a power generation station, comprising:

a gas turbine having a compressor component, a combustion component, and a turbine component;

a cooling air line with a primary side;

cooling air extracted through the cooling air line from a volume of compressor air; and

a heat exchanger system connected toward the primary side of the cooling air line and receives a portion of the cooling air, wherein the heat exchanger system transfers heat that is carried in the cooling air to a combustion gas flow which is supplied to the combustion chamber of the gas turbine.

17. (new) The cooling system as claimed in claim 16, wherein the amount of heat supplied to the combustion gas flow is changeable.

18. (new) The cooling system as claimed in claim 16, wherein the heat exchanger system has a secondary side.

19. (new) The cooling system as claimed in claim 16, wherein the heat exchanger system is connected on the secondary side of a number of circuit elements which are connected in parallel on the heat flow side.

20. (new) The cooling system as claimed in claim 16, wherein the heat exchanger system comprises a heat exchanger with a secondary side that is connected directly in the combustion gas flow.

21. (new) The cooling system as claimed in claim 16, wherein the heat exchanger system is connected on the secondary side via an intermediate circuit to a further heat exchanger that is connected on a secondary side in the combustion gas flow.

22. (new) The cooling system as claimed in claim 21, via whose intermediate circuit an auxiliary steam generator can be heated.

23. (new) The cooling system as claimed in claim 22, wherein a connection on a heat side of the heat exchanger system to the further heat exchanger is produced via an auxiliary steam generator.

24. (new) A method for cooling a volume of cooling air for a gas turbine, comprising:
removing a portion of air flow as cooling air flow from a compressor;
extracting heat from the cooling air flow; and
transferring the extracted heat to a combustion gas flow and supplying the flow to a combustion chamber of the gas turbine.

25. (new) The method as claimed in claim 24, wherein the amount of heat supplied to the combustion gas flow is matched to the operating state of the gas turbine system.

26. (new) The method as claimed in claim 24, wherein the heat flow extracted from the cooling air is divided and supplied to a number of flow elements.

27. (new) The method as claimed in claim 24, wherein the heat is transferred via a heat exchanger with a secondary side that is connected directly in the combustion gas flow.

28. (new) The method as claimed in claim 24, wherein heat is transferred from a cooling air line to the combustion gas flow via an intermediate circuit.

29. (new) The method as claimed in claim 28, wherein an amount of heat is transferred to an auxiliary steam generator that is connected in the intermediate circuit.

30. (new) The method as claimed in claim 24, wherein in a first circuit an amount of heat is transferred from the cooling air flow a first heat exchanger to an auxiliary steam generator which is connected in a first circuit and is transferred to the combustion gas flow by a further heat exchanger.